

0570
12/3

OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/852,455

DATE: 12/06/2001
TIME: 15:09:11

Input Set : A:\25984004.app
Output Set: N:\CRF3\12062001\I852455.raw

ENTERED

3 <110> APPLICANT: BLUME, ARTHUR J.
4 GOLDSTEIN, NEIL
5 PILLUTA, RENUKA
6 HSIAO, KU-CHUAN
7 PRENDERGAST, JOHN
9 <120> TITLE OF INVENTION: METHODS OF IDENTIFYING THE ACTIVITY OF GENE PRODUCTS
11 <130> FILE REFERENCE: 2598-4004US1
13 <140> CURRENT APPLICATION NUMBER: 09/852,455
14 <141> CURRENT FILING DATE: 2001-05-09
16 <150> PRIOR APPLICATION NUMBER: 60/202,912
17 <151> PRIOR FILING DATE: 2000-05-09
19 <160> NUMBER OF SEQ ID NOS: 81
21 <170> SOFTWARE: PatentIn Ver. 2.1
23 <210> SEQ ID NO: 1
24 <211> LENGTH: 4
25 <212> TYPE: PRT
26 <213> ORGANISM: Artificial Sequence
28 <220> FEATURE:
29 <223> OTHER INFORMATION: Description of Artificial Sequence: FLAG sequence
31 <400> SEQUENCE: 1
32 Asp Tyr Lys Asp
33 1
36 <210> SEQ ID NO: 2
37 <211> LENGTH: 13
38 <212> TYPE: PRT
39 <213> ORGANISM: Artificial Sequence
41 <220> FEATURE:
42 <223> OTHER INFORMATION: Description of Artificial Sequence: E-tag epitope
44 <400> SEQUENCE: 2
45 Gly Ala Pro Val Pro Tyr Pro Asp Pro Leu Glu Pro Arg
46 1 5 10
49 <210> SEQ ID NO: 3
50 <211> LENGTH: 18
51 <212> TYPE: PRT
52 <213> ORGANISM: Artificial Sequence
54 <220> FEATURE:
55 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
56 surrogate peptide
58 <400> SEQUENCE: 3
59 Arg Lys Glu Met Gly Gly Gly Gly Pro Gly Trp Ser Glu Asn Leu
60 1 5 10 15
62 Phe Gln
66 <210> SEQ ID NO: 4
67 <211> LENGTH: 7
68 <212> TYPE: PRT
69 <213> ORGANISM: Homo sapiens
71 <400> SEQUENCE: 4

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/852,455

DATE: 12/06/2001

TIME: 15:09:11

Input Set : A:\25984004.app

Output Set: N:\CRF3\12062001\I852455.raw

```

72 Trp Ser Glu Asn Leu Phe Gln
73   1           5
76 <210> SEQ ID NO: 5
77 <211> LENGTH: 162
78 <212> TYPE: PRT
79 <213> ORGANISM: Homo sapiens
81 <400> SEQUENCE: 5
82 Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro His Leu Gly Asp Arg
83   1           5           10           15
85 Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys Tyr Ile His Pro Gln
86           20           25           30
88 Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr
89           35           40           45
91 Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu
92           50           55           60
94 Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu Arg His Cys Leu Ser
95   65           70           75           80
97 Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys
98           85           90           95
100 Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg
101           100           105           110
103 His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys
104           115           120           125
106 Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu Lys Gln Asn Thr Val
107           130           135           140
109 Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu Asn Glu Cys Val Ser
110 145           150           155           160
112 Cys Ser
116 <210> SEQ ID NO: 6
117 <211> LENGTH: 171
118 <212> TYPE: PRT
119 <213> ORGANISM: Homo sapiens
121 <400> SEQUENCE: 6
122 Leu Pro Gly Val Gly Leu Thr Pro Ser Ala Ala Gln Thr Ala Arg Gln
123   1           5           10           15
125 His Pro Lys Met His Leu Ala His Ser Thr Leu Lys Pro Ala Ala His
126           20           25           30
128 Leu Ile Gly Asp Pro Ser Lys Gln Asn Ser Leu Leu Trp Arg Ala Asn
129           35           40           45
131 Thr Asp Arg Ala Phe Leu Gln Asp Gly Phe Ser Leu Ser Asn Asn Ser
132           50           55           60
134 Leu Leu Val Pro Thr Ser Gly Ile Tyr Phe Val Tyr Ser Gln Val Val
135   65           70           75           80
137 Phe Ser Gly Lys Ala Tyr Ser Pro Lys Ala Pro Ser Ser Pro Leu Tyr
138           85           90           95
140 Leu Ala His Glu Val Gln Leu Phe Ser Ser Gln Tyr Pro Phe His Val
141           100           105           110
143 Pro Leu Leu Ser Ser Gln Lys Met Val Tyr Pro Gly Leu Gln Glu Pro
144           115           120           125

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/852,455

DATE: 12/06/2001

TIME: 15:09:11

Input Set : A:\25984004.app

Output Set: N:\CRF3\12062001\I852455.raw

```

146 Trp Leu His Ser Met Tyr His Gly Ala Ala Phe Gln Leu Thr Gln Gly
147      130      135      140
149 Asp Gln Leu Ser Thr His Thr Asp Gly Ile Pro His Leu Val Leu Ser
150 145      150      155      160
152 Pro Ser Thr Val Phe Phe Gly Ala Phe Ala Leu
153      165      170
156 <210> SEQ ID NO: 7
157 <211> LENGTH: 19
158 <212> TYPE: PRT
159 <213> ORGANISM: Homo sapiens
161 <400> SEQUENCE: 7
162 Arg Lys Glu Met Gly Gly Gly Gly Gly Gly Pro Gly Trp Ser Glu Asn
163 1      5      10      15
165 Leu Phe Gln
169 <210> SEQ ID NO: 8
170 <211> LENGTH: 184
171 <212> TYPE: PRT
172 <213> ORGANISM: Homo sapiens
174 <400> SEQUENCE: 8
175 Leu Pro Ala Gln Val Ala Phe Thr Pro Tyr Ala Pro Glu Pro Gly Ser
176 1      5      10      15
178 Thr Cys Arg Leu Arg Glu Tyr Tyr Asp Gln Thr Ala Gln Met Cys Cys
179      20      25      30
181 Ser Lys Cys Ser Pro Gly Gln His Ala Lys Val Phe Cys Thr Lys Thr
182      35      40      45
184 Ser Asp Thr Val Cys Asp Ser Cys Glu Asp Ser Thr Tyr Thr Gln Leu
185      50      55      60
187 Trp Asn Trp Val Pro Glu Cys Leu Ser Cys Gly Ser Arg Cys Ser Ser
188 65      70      75      80
190 Asp Gln Val Glu Thr Gln Ala Cys Thr Arg Glu Gln Asn Arg Ile Cys
191      85      90      95
193 Thr Cys Arg Pro Gly Trp Tyr Cys Ala Leu Ser Lys Gln Glu Gly Cys
194      100      105      110
196 Arg Leu Cys Ala Pro Leu Arg Lys Cys Arg Pro Gly Phe Gly Val Ala
197      115      120      125
199 Arg Pro Gly Thr Glu Thr Ser Asp Val Val Cys Lys Pro Cys Ala Pro
200      130      135      140
202 Gly Thr Phe Ser Asn Thr Thr Ser Ser Thr Asp Ile Cys Arg Pro His
203 145      150      155      160
205 Gln Ile Cys Asn Val Val Ala Ile Pro Gly Asn Ala Ser Arg Asp Ala
206      165      170      175
208 Val Cys Thr Ser Thr Ser Pro Thr
209      180
212 <210> SEQ ID NO: 9
213 <211> LENGTH: 56
214 <212> TYPE: RNA
215 <213> ORGANISM: Artificial Sequence
217 <220> FEATURE:
218 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic

```

RAW SEQUENCE LISTING

DATE: 12/06/2001

PATENT APPLICATION: US/09/852,455

TIME: 15:09:11

Input Set : A:\25984004.app

Output Set: N:\CRF3\12062001\I852455.raw

219 biotinylated-RNA
 221 <400> SEQUENCE: 9
 222 aaugccagg acgaccggg ccuucuuugg aucaaccgc ucaaugccug gagauu 56
 225 <210> SEQ ID NO: 10
 226 <211> LENGTH: 42
 227 <212> TYPE: PRT
 228 <213> ORGANISM: Homo sapiens
 230 <400> SEQUENCE: 10
 231 Glu Asp Leu Asp Asn Ile Gln Thr Pro Glu Ser Val Leu Leu Ser Ala
 232 1 5 10 15
 234 Val Ser Gly Glu Asp Thr Gln Asp Arg Thr Asp Arg Leu Leu Leu Thr
 235 20 25 30
 237 Pro Trp Val Lys Phe Leu Trp Glu Ser Tyr
 238 35 40
 241 <210> SEQ ID NO: 11
 242 <211> LENGTH: 5
 243 <212> TYPE: PRT
 244 <213> ORGANISM: Artificial Sequence
 246 <220> FEATURE:
 247 <221> NAME/KEY: MOD_RES
 248 <222> LOCATION: (2)
 249 <223> OTHER INFORMATION: Any amino acid
 251 <220> FEATURE:
 252 <223> OTHER INFORMATION: Description of Artificial Sequence: Consensus
 253 sequence
 255 <400> SEQUENCE: 11
 256 Thr Xaa Arg Leu Leu
 257 1 5
 260 <210> SEQ ID NO: 12
 261 <211> LENGTH: 24
 262 <212> TYPE: PRT
 263 <213> ORGANISM: Hepatitis C virus
 265 <400> SEQUENCE: 12
 266 Thr Ser Gly Glu Ser Ser Gly Asp Arg Thr Arg Arg Val Leu Thr Ser
 267 1 5 10 15
 269 Ser Ser Ala Arg Thr Leu Pro Asn
 270 20
 273 <210> SEQ ID NO: 13
 274 <211> LENGTH: 35
 275 <212> TYPE: PRT
 276 <213> ORGANISM: Hepatitis C virus
 278 <400> SEQUENCE: 13
 279 Leu Leu Val Thr Gly Gln Phe Pro Ser Gln Leu Leu Leu Gly Gly Ala
 280 1 5 10 15
 282 Val Cys Gly Pro Ser Thr Pro Arg Leu Arg Thr Gly Leu Cys Arg Leu
 283 20 25 30
 285 Ser Gly Thr
 286 35
 289 <210> SEQ ID NO: 14

RAW SEQUENCE LISTING

DATE: 12/06/2001

PATENT APPLICATION: US/09/852,455

TIME: 15:09:11

Input Set : A:\25984004.app

Output Set: N:\CRF3\12062001\I852455.raw

```

290 <211> LENGTH: 40
291 <212> TYPE: PRT
292 <213> ORGANISM: Hepatitis C virus
294 <400> SEQUENCE: 14
295 Arg Arg Thr Cys Gly Asp Pro Ala Ala Met Leu Glu Arg Leu Ser Cys
296   1               5               10               15
298 Arg Ala Gly Asp Tyr Arg Gly Ala Ser His Thr Gly Arg Leu Leu Asn
299               20               25               30
301 Leu Arg Gly Met His Gln Tyr Pro
302   35               40
305 <210> SEQ ID NO: 15
306 <211> LENGTH: 20
307 <212> TYPE: PRT
308 <213> ORGANISM: Hepatitis C virus
310 <400> SEQUENCE: 15
311 Phe Thr Thr Pro Arg His Leu Ser Gly Arg Thr Val Gln Met Met Arg
312   1               5               10               15
314 Asp Ser Thr Ser
315               20
318 <210> SEQ ID NO: 16
319 <211> LENGTH: 15
320 <212> TYPE: PRT
321 <213> ORGANISM: Hepatitis C virus
323 <400> SEQUENCE: 16
324 Thr Ser Gly Glu Ser Ser Gly Asp Arg Thr Arg Arg Val Leu Thr
325   1               5               10               15
328 <210> SEQ ID NO: 17
329 <211> LENGTH: 11
330 <212> TYPE: PRT
331 <213> ORGANISM: Hepatitis C virus
333 <400> SEQUENCE: 17
334 Ser Gly Glu Ser Ser Gly Asp Arg Thr Arg Arg
335   1               5               10
338 <210> SEQ ID NO: 18
339 <211> LENGTH: 11
340 <212> TYPE: PRT
341 <213> ORGANISM: Gallus sp.
343 <400> SEQUENCE: 18
344 Ser Gly Ser Ser Ser Gly Gln Arg Thr Arg Lys
345   1               5               10
348 <210> SEQ ID NO: 19
349 <211> LENGTH: 13
350 <212> TYPE: PRT
351 <213> ORGANISM: Hepatitis C virus
353 <400> SEQUENCE: 19
354 Ser Gly Glu Ser Ser Gly Asp Arg Thr Arg Arg Val Leu
355   1               5               10
358 <210> SEQ ID NO: 20
359 <211> LENGTH: 13

```

Use of n and/or Xaa has been detected in the Sequence Listing.
 Review the Sequence Listing to insure a corresponding
 explanation is presented in the <220> to <223> fields of
 each sequence using n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/852,455

DATE: 12/06/2001

TIME: 15:09:12

Input Set : A:\25984004.app

Output Set: N:\CRF3\12062001\I852455.raw

L:256 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:648 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47
L:993 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66
L:1029 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:68